AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

What is Claimed is:

1. (Previously presented) A polymeric particle comprising a pharmaceutically acceptable polymer core, a bioactive agent, and a surface-altering agent disposed on the surface of the core that enhances the average rate at which the particles or a fraction of the particles move in mucus by at least 5-fold compared to the same particles except without a surface-altering agent disposed on the surface.

2. (Original) The polymeric particle of claim 1, wherein the bioactive agent is encapsulated in the polymer core.

3. (Withdrawn) The polymeric particle of claim 1, wherein the bioactive agent is disposed on the surface of the polymeric particle.

4. (Withdrawn) The polymeric particle of claim 1, wherein the bioactive agent is covalently coupled to the polymer core.

5. (Original) The polymeric particle of claim 1, wherein the pharmaceutically acceptable polymer is a poly(D,L-lactic-co-glycolic) acid, polyethylenimine, dioleyltrimethyaimoniumpropane/dioleyl-sn-glycerolphosphoethanolamine, poly(anhydrides), or a polymer formed from clinically approved monomers.

6. (Withdrawn) The polymeric particle of claim 5, wherein the clinically approved monomers are monomers of sebacic acid, 1,3-bis(carboxyphenoxy)propane, and/or PEG.

7. (Original) The polymeric particle of claim 1, wherein the bioactive agent is a therapeutic agent or an imaging agent.

8. (Original) The polymeric particle of claim 7, wherein the therapeutic agent is a DNA, an RNA, a small molecule, a peptidomimetic, or a protein.

9. (Withdrawn) The polymeric particle of claim 7, wherein the imaging agent is a diagnostic agent.

10. (Withdrawn) The polymeric particle of claim 7, wherein the imaging agent further comprises a detectable label.

11. (Withdrawn) The polymeric particle of claim 1 further comprising a targeting moiety.

12. (Original) The polymeric particle of claim 1 further comprising an adjuvant.

13. (Original) The polymeric particle of claim 1, wherein the surface-altering agent is a cationic surfactant.

14. (Withdrawn) The polymeric particle of claim 13, wherein the cationic surfactant is dimethyldioctadecylammonium bromide.

15. (Withdrawn) The polymeric particle of claim 1, wherein the surface-altering agent enhances hydrophilicity of the surface of the polymeric particle.

16. (Withdrawn) The polymeric particle of claim 15, wherein the surface-altering agent is polyethylene glycol.

17. (Original) The polymeric particle of claim 1, wherein the polymeric particle is less than 200 nm in diameter.

18. (Original) The polymeric particle of claim 1, wherein the polymeric particle passes through a mucosal barrier at a greater rate than a polystyrene particle of a similar size.

19. (Withdrawn) The polymeric particle of claim 1, wherein the bioactive agent is a DNA, and wherein the polymeric particle comprising the DNA transfects a cell more efficiently than naked DNA.

20. (Previously presented) A polymeric particle comprising a pharmaceutically acceptable polymer core and a bioactive agent disposed on the surface of the particle, wherein the bioactive agent on the surface of the particle enhances the average rate at which the particles or a fraction of the particles move in mucus by at least 5-fold compared to the same particles except without the bioactive agent disposed on the surface.

21. (Currently amended) A pharmaceutical composition comprising the polymeric particle of claim 1 ~~or 16~~ and a pharmaceutically acceptable carrier.

22. (Currently amended) An inhaler comprising the polymeric particle of claim 1 ~~or 16~~.

23. (Withdrawn) A method for transfecting a cell comprising administering to the cell a polymeric particle of claim 1 or 16.

24. (Withdrawn) A method for treating, preventing, or diagnosing a condition in a patient, comprising administering to the patient a pharmaceutical composition of claim 17.

25. (Withdrawn) The method of claim 20, wherein the polymeric particle in the pharmaceutical composition passes through a mucosal barrier in the patient.

26. (Previously presented) The polymeric particle of claim 1, wherein the average rate at which the particles or a fraction of the particles move in mucus as least 10-fold greater than the rate of the same particles except without the surface-altering agent disposed on the surface.

27. (Previously presented) The polymeric particle of claim 20, wherein the average rate at which the particles or a fraction of the particles move in mucus is at least 10-fold greater than the rate of the same particles except without the bioactive agent disposed on the surface.

28. (Previously presented) The polymeric particle of claim 1, wherein the average rate at which the particles or a fraction of the particles move in mucus is determined by ensemble mean square displacement in pig gastric mucus.

29. (Previously presented) The polymeric particle of claim 20, wherein the average rate at which the particles or a fraction of the particles move in mucus is determined by ensemble mean square displacement in pig gastric mucus.